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10/729,191	12/05/2003	Gary L. Swoboda	TI-34672	2408

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EXAMINER
KHANNA, MADHU

ART UNIT	PAPER NUMBER
2451	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS,
WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>01 June 2009</u>.

2a) ☒ This action is FINAL.　　2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is
closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-4 and 6-10</u> is/are pending in the application.

　　4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>1-4 and 6-10</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☒ The drawing(s) filed on <u>05 December 2003</u> is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

　　Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

　　Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

　　a) ☐ All　b) ☐ Some * c) ☐ None of:

　　　1. ☐ Certified copies of the priority documents have been received.

　　　2. ☐ Certified copies of the priority documents have been received in Application No. _____.

　　　3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage
　　　　　application from the International Bureau (PCT Rule 17.2(a)).

　　* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____.

DETAILED ACTION

1.   This communication is in response to amendment filed 02/24/2009. Claims 1, 4,
6 and 9 have been amended and claims 5 and 11 have been cancelled. Claims 1-4 and
6-10 remain pending.

Claim Rejections - 35 USC § 112

2.   Applicant's arguments regarding claims 1, 6 and 9 being rejected under 35 USC
112, first paragraph have been fully considered but they are not persuasive.

     Specifically, Applicant cites lines 17-20 of specification page 10 and lines 16-26
of specification page 13 for support for "a single field". Lines 16-26 of page 13 do not
recite a "new field packet" or a "field continuation packet", as noted by Applicant. Lines
17-20 on page 10 describe the extension portions within each packet specifying either a
new field packet for the packet group or a field continuation packet. The extension bits
described in the cited portion of the specification are included in the claim language
wherein "a first of said further packets includes a first said extension portion" and
wherein "said remainder of said further packets has a second said extension portion".
The claim also recites that "at least one packet subgroup constitutes a single field in the
trace stream". Given that the claim therefore describes a field in the header packet and
extension fields in the each of the following packets, it is unclear what the "single field"
represents with regards to a packet subgroup.

     Further, the specification does recite that "Number of new field packets can be
defined in the packet group header" in lines 20-21 on page 10, which indicates that a

new field packet may be the same as a packet subgroup. It is unclear whether this
"new field" is intended to be the "single field" in the claim language and how the "single
field" in the claim is distinguished from a packet subgroup.

3.   Applicant's arguments regarding claim 4 being rejected under 35 USC 112,
second paragraph have been fully considered but they are not persuasive. Although the
amendment corrects the previous indefinite "implied header", the claim is amended to
now recite "a position in the trace stream occupied by an immediately following packet
group". It is unclear how provided data can permit a position in the trace stream or how
the following packet group can *occupy* a position in a current trace stream.

Response to Arguments

4.   Applicant's arguments regarding the applied references failing to teach the
limitations of independent claims 1, 6 and 9 have been fully considered but they are not
persuasive. Specifically, it is argued that in the Maes reference, the content of every
InterFrame differs in its essences from the content of the IntraFrame, so the
InterFrames can in no way be fairly considered to contain "a continuation of content
contained in the first packet such that said at least one packet subgroup constitutes a
signal field in a trace stream".

        In response to the argument, it is first noted, as illustrated in FIG. 3, that a "Block"
in the Maes reference, correlating with the claimed subgroup, is made up of a first

IntraFrame and a series of InterFrames following the IntraFrame. Together these blocks make up a segment, or group of blocks. Although, as noted by Applicant, the IntraFrame differs in its essence from the content of the InterFrames, the IntraFrame and its associates InterFrames are related. Based on this relationship and association, the InterFrames following the IntraFrame in a particular block are a continuation of the block. The claim language does not define that the kind of content of the first packet is the same format as the following continuation packets.

Further, Applicant recites that the Jensen and Kapoor references, of which the rejection was made in view of, fail to remedy the any alleged deficiencies of Maes. Although it is not thought to be necessary, it is noted that Jensen teaches breaking down data into data segments, [0023]. Therefore, Jensen discloses wherein transmitted data is broken up into a first segment and continuation segments. The rejection is therefore maintained.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

5.   Claims 1-4 and 9-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maes (Pub. No.: US 2002/0184373) in view of Jensen (Pub. No.: US 2002/0143988) and in further view of Kapoor (US Patent # 5,818,852).

Regarding claim 1, Maes teaches a method of producing a packet group for use in a
trace stream of packets, comprising:

provide at least one header packet (Segment Header) within the packet group
(Segment) [0114]; and

arranging at least one plurality of further packets (frames) to form a
corresponding at least one packet subgroup (Block) within the packet group (Segment)
([0114], see FIG. 3);

wherein a first of said further packets (IntraFrame) includes first features [0111],
wherein a remainder of said further packets (InterFrame) follow the first packet
(IntraFrame) in said at least one packet subgroup (Block) (IntraFrame is the first frame
of a Block, [0111]) and contain a continuation of content contained in the first packet
(each Block comprises a single IntraFrame and one or more InterFrames, [0111]) such
that said at least one packet subgroup constitutes a single field in the trace stream
(each Block can be decompressed on its own, [0113]), and wherein each of said
remainder of said further packets (InterFrames) has a second feature that differs from
said first extension portion (the InterFrames may be coded differently than the
IntraFrames, [0112]). However, Maes does not explicitly disclose each of said further
packets having an extension portion and a payload portion or wherein a first of said
packets includes a first said extension portion and wherein each remainder of said
further packets has a second said extension portion.

Jensen teaches wherein each further packet has an extension portion (first frame fragment indicator (FFFI), 315 of FIG. 3) and a payload portion (payload data, 305 of FIG. 3); and

wherein a first of said further packets (frame fragment 405_1 of FIG. 4) includes a first said extension portion (FFFI is set to TRUE, 430_1 of FIG. 4), and wherein each remainder of said further packets (405_2 and 405_3 of FIG. 4) has a second extension portion (FALSE, 430_2 and 430_3 of FIG. 4).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize an extension portion in each packet in the system/method of Maes as suggested by Jensen in order to be able to identify the first packet verses following packets of a subgroup when they are not otherwise coded differently. One would be motivated to combine these teachings because in doing so the system/method could be used in a wider range of implementations for various types of data. However, although Maes teaches a field in the header packet (Segment Header) which indicates the number of packets (frames) in the packet group (Segment), Maes-Jensen do not explicitly disclose a field in the header packet indicating a number of packet subgroups provided in the packet group.

Kapoor teaches wherein a field in at least one header packet indicates a number of packet subgroups provided in a packet group (the header may also include the number of subframes in the frame, column 3 lines 15-17).

It would have been obvious to one of ordinary skill in the art at the time of the claimed invention to utilize a header which includes the number of subframes in a frame

in the system/method of Maes-Jensen as suggested by Kapoor because doing so would

provide improved identification information to a receiver regarding a group (or frame).

One would be motivated to combine these teachings because it would also allow for an

indication of how to determine the end of a Segment which comprises a different

number of frames per Block.

Regarding claim 2, Maes teaches the method as recited in claim 1 wherein said packet

group (e.g. Speech Segment of FIG. 3) ends when a next packet of the trace stream

(e.g. Silence Segment Header of FIG. 3) that immediately follows a packet of the last

packet subgroup (third Block of the first Segment, FIG. 3) does not have the feature of

the remainder of packets (InterFrame).

Jensen teaches the remainder of packets feature being a second extension

portion (FALSE, 430_2 and 430_3 of FIG. 4).

Regarding claim 3, the method as recited in claim 2 wherein said next packet (e.g.

Silence Segment Header of FIG. 3) begins a new packet group (second Segment of

FIG. 3).

Regarding claim 4, Maes teaches the method as recited in claim 1 where said number

of packets (e.g., specifies N3 silence frames, FIG. 3), permit a position in the trace

stream occupied by an immediately following packet subgroup (block) to be identifed

without using a header packet to identify said position (Given that Maes teaches

Segment Headers which specify the number of frames per segment it would be obvious

that the system/method will determine when one Segment ends and another begins

without the need to insert an additional File Header, see FIG. 3).

However, Maes does not explicitly disclose a first and second extension portions

permit a position in the trace stream.

Jensen teaches a first (FFFI is TRUE) and second extension (FFFI is FALSE)

portion permit a position in a trace stream [0029].

It would have been obvious to one of ordinary skill in the art at the time of the

claimed invention to utilize an extension portion in each packet in the system/method of

Maes as suggested by Jensen in order to be able to identify the first packet verses

following packets of a subgroup when they are not otherwise coded differently. This

would provide a way to identify the frames position in the segment. One would be

motivated to combine these teachings because in doing so the system/method could be

used in a wider range of implementations for various types of data.

However, Maes-Jensen do not explicitly disclose said number of packet

subgroups permit a position in the trace stream.

Kapoor teaches said number of packet subgroups permit a position in the trace

stream (the header may also include the number of subframes in the frame, column 3

lines 14-22).

It would have been obvious to one of ordinary skill in the art at the time of the

claimed invention to utilize a header which includes the number of subframes in a frame

in the system/method of Maes-Jensen as suggested by Kapoor because doing so would

provide improved identification information to a receiver regarding a group (or frame).

One would be motivated to combine these teachings because it would also allow for an

indication of how to determine the end of a Segment which comprises a different

number of frames per Block.

Regarding claim 9, Maes teaches a method for transferring information from a target

processor to a host processing unit in a trace stream of packets, the method

comprising:

      dividing the packets into packet groups (the RECOVC File further comprises one

or more Segments, [0114]);

      formatting each packet group (Segment) to include at least one header packet

(corresponding Segment Header, [0114]); and

      formatting each packet group (Segment) to include at least one packet subgroup

(Block) containing a plurality of further packets (each Block comprises a single

IntraFrame and one or more InterFrames, [0111]); further limitation(s) are substantially

the same as those discussed on claim 1 above, same rationale of rejection is

applicable.

Regarding claim 10, this method claim comprises limitation(s) substantially the same as

those discussed on claim 2 above, same rationale of rejection is applicable.

6.   Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Maes-Jensen-Kapoor in view of Williamson (Pub. No.: US 2003/0041166).

Regarding claim 6, Maes-Jensen-Kapoor do not explicitly disclose a host processing

unit and a target processor, wherein the target processor transmits trace streams to the

host processing unit, the trace streams permitting the host processing unit to

reconstruct the operation of the target processing unit, and at least one of the trace

streams comprising a sequence of packet groups.

        Williamson teaches a processor test and debug system, the system comprising:

        a host processing unit (first host, [0023]); and

        a target processor (second host, [0023]), the target processor transmitting trace

streams of packets to the host processing unit (the second software tool transmits data

to the first software tool running on the first host, [0023]), the trace streams permitting

the host processing unit to reconstruct (perform error checking and/or assemble) the

operation of the target processing unit [0027], at least one of the trace streams

comprising a sequence of packet groups (plurality of data entities, [0010]), each said

packet group including limitation(s) substantially the same as those discussed on claim

1 above, same rationale of rejection is applicable.

        It would have been obvious to one of ordinary skill in the art at the time of the

claimed invention to utilize transmitting and debugging between a host and target

processor in the system/method of Maes-Jenson-Kapoor as suggested by Williamson in

order to ensure an efficient and error-free system. One would be motivated to combine

these teachings because verifying the quality of the transmission medium and the
transmitted data results in a user being provided with an enhanced and reliable system.

Regarding claim 7, this system claim comprises limitation(s) substantially the same as
those discussed on claim 2 above, same rationale of rejection is applicable.

Regarding claim 8, this system claim comprises limitation(s) substantially the same as
those discussed on claim 3 above, same rationale of rejection is applicable.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time
policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MADHU KHANNA whose telephone number is (571)270-3629. The examiner can normally be reached on Monday-Thursday 8:30-6.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Follansbee can be reached on 571-272-3964. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/M. K./
Examiner, Art Unit 2451
/Salad Abdullahi/
Primary Examiner, Art Unit 2457